CLAIMS

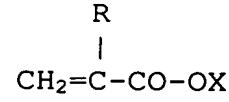
1. A near-infrared ray shielding paint comprising a first near-infrared ray-absorption coloring matter comprising at least one near-infrared ray-absorption diimonium compound constituted from a diimonium compound cation and a counter anion represented by the formula (1):

$(CF_3SO_2)_2N^-$ (1):

second near-infrared ray-absorption coloring matter comprising at least one coloring matter compound having a maximum absorption in a near-infrared wavelength range of from 750 to 950 nm, exhibiting substantially no absorption in the visible ray wavelength range and different from the diimonium compound; and

a transparent resin comprising a polymer of at least one ethylenically unsaturated monomer;

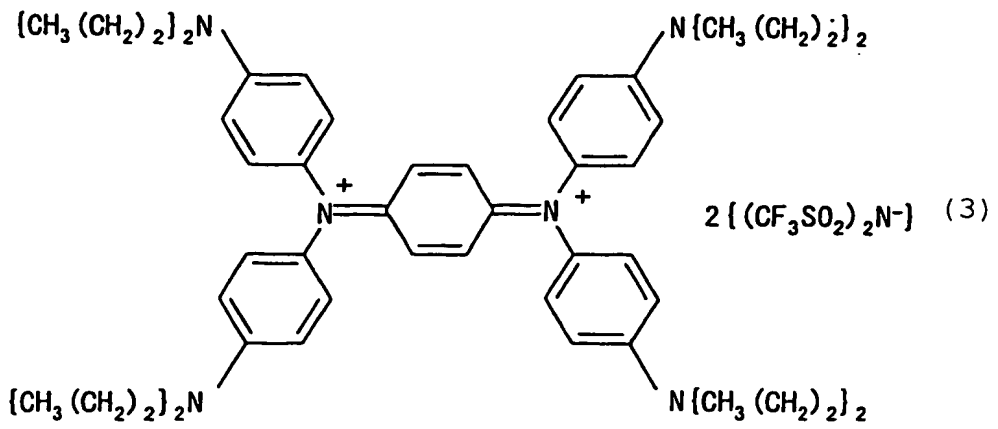
wherein the ethylenically unsaturated monomer comprises a monomer represented by the general formula (2):



(2)

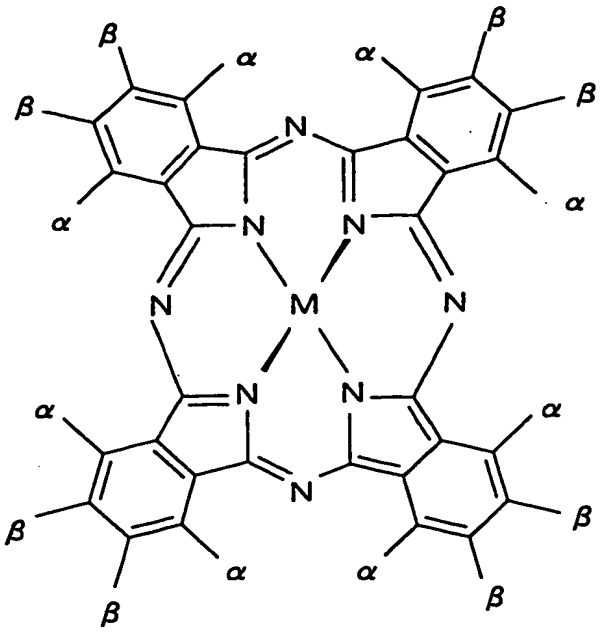
in which general formula (2), R represents a hydrogen atom or a methyl group and X represents a cyclic hydrocarbon group having 6 to 25 carbon atoms, in a content of 30% by mass.

2. The near-infrared ray shielding paint as claimed in claim 1, wherein the near-infrared ray-absorption diimonium compound for the first near-infrared ray-absorption coloring matter comprises a compound represented by the formula (3):



3. The near-infrared ray shielding paint as claimed in claim 1, wherein the second near-infrared ray-absorption coloring matter is selected from dithiol metal complex compounds, phthalocyanine compounds, naphthalocyanine compounds and cyanine compounds each having a maximum absorption in the wavelength range of from 750 to 950 nm and exhibiting substantially no absorption in the visible ray wavelength range.

4. The near-infrared ray shielding paint as claimed in claim 3, wherein the phthalocyanine compound is selected from the compounds represented by the general formula (4):



(4)

in which general formula (4), the eight αs respectively and independently represents a member selected from $-SR^1$, $-OR^2$ and $-NHR^3$ groups and a halogen atom, except that at least one of theαs must represent the NHR^3 group; the eight βs respectively or independently from each other represent a member selected from $-SR^1$ or $-OR^2$ groups and a halogen atom, except that at least one of theβs must represent a $-SR^1$ or $-OR^2$ group; and at least one of the eight αs and at least one of the eightβs respectively represents a halogen atom and an $-OR^2$ group, R^1, R^2 and R^3 respectively and independently from each other represents a member selected from substituted and unsubstituted phenyl groups, alkyl groups having 1 to 20 carbon atoms and aralkyl groups having 7 to 20 carbon atoms, and

M represent a member selected from a metal atom, one or more hydrogen atoms, a metal oxide and a metal halide.

5. The near-infrared ray shielding paint as claimed in any one of claims 1 to 4, wherein the ratio in mass of the first near-infrared ray absorption coloring matter to the second near-infrared ray absorption

coloring matter contained in the paint is in the range of from 3:2 to 29:1.

6. The near-infrared ray shielding paint as claimed in any one of claims 1, 3, 4 and 5, wherein ratios in absorptivity of the second near-infrared absorption coloring matter at the maximum absorption wavelength in the near-infrared ray wavelength range to absorptivities of the second near-infrared absorption coloring matter at the wavelengths of 450 nm, 550 nm and 620 nm are all 5.0 or more.

7. The near-infrared ray shielding paint as claimed in claim 1, wherein the transparent resin has a glass-transition temperature of 60 to 120°C, a number average molecular weight of 20,000 to 80,000 and a weight average molecular weight of 200,000 to 400,000.

8. The near-infrared ray shielding paint as claimed in any one of claims 1 to 7, wherein a ratio in dry solid mass of the total of the first and second near-infrared ray-absorption coloring matter to the transparent resin is in the range of from 1:99 to 1:4.

9. A near-infrared ray shielding laminate comprising a substrate material and at least one near-infrared ray-shielding layer formed from the barrier paint for shielding the near-infrared rays as claimed in any one of claims 1 to 8, and bonded to at least one surface of the substrate material.

10. The near-infrared ray shielding laminate as claimed in claim 9, wherein the substrate material comprises a polyester resin film and an adhesion-enhancing layer formed on a surface of the polyester resin film but not containing a reactive curing agent, the near-infrared ray-shielding layer being formed on the adhesion-enhancing layer.

11. The near-infrared ray shielding laminate as claimed in claim 9 or 10, having a visible ray-transmittance of 60% or more at each wavelength of 450 nm, 525 nm and 620 nm and an average near-infrared ray

transmittance of 10% or less at a wavelengths from 850 to 1,000 nm.

12. The near-infrared ray shielding laminate as claimed in any one of claims 9 to 11, wherein the visible ray transmittance of the laminate at a wavelength of 590 nm is 10% or more below the visible ray transmittance of the laminate at each wavelength of 450 nm, 525 nm and 620 nm.

13. The near-infrared ray shielding laminate as claimed in any one of claims 9 to 12, wherein the substrate material has a ultraviolet ray-shielding property, and/or a ultraviolet ray-shielding layer is further coated on the near-infrared ray-shielding layer, and, as a whole, the barrier laminate exhibits a ultraviolet ray transmittance of 2% or less, in a ultraviolet range having a wavelength of 380 nm or less.

14. The near-infrared ray shielding laminate as claimed in claim 13, wherein the ultraviolet ray shielding layer comprises a transparent solid material and a ultraviolet ray-absorption layer formed on a surface of the transparent solid material and comprising a ultraviolet absorber and a binder.

15. The near-infrared ray shielding laminate as claimed in any one of claims 9 to 13, wherein a result of each deterioration promotion test in a high humidity atmosphere at a temperature of 60°C at a relative humidity of 90% for 1,000 hours; a deterioration promotion test in a high temperature dry atmosphere at a temperature of 80°C at a relative humidity of 5% or less for 1,000 hours; a deterioration promotion test in a high temperature high humidity atmosphere at a temperature of 80°C at a relative humidity of 95% for 48 hours; and a deterioration promotion weathering test under a xenon lamp irradiation at an intensity of radiation of 550 W/m^2 for 48 hours, the changes in chromaticities x and y of the laminate for shielding near-infrared rays between before and after the

each test is 0.005 or less.

16. A method of producing a near-infrared ray shielding laminate comprising coating the barrier paint for infrared rays as claimed in any one of claims 1 to 8 on at least one surface of a substrate material and drying the resultant coating layer to form a near-infrared ray-shielding layer.